

Work Order ID 54890



Page 1

January 5, 2010 8:28:48 AM

Item ID: D204-635-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

100

0.00



DC

0.00

Document Control

Memo

Photocopy bluefile & type labels per PPP D204-635-041
CHG 002

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Date:

Tooling:

Date:

Stop



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Date:

SPC (Y/N):

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Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

110

0.00



Skidtubes

0.00

Skidtubes

Memo

1-Inspect mat'l D2500-1-190 for damage

2-Cut D2500-1-190 per Dwg D2590 .Debur ends

3-Drill pilot holes using drill jig DT 8149 & DT8711-1&-2

4-Acid etch and Alodine tube per QSI 005 4.1

5-Open holes to 0.500" as per Dwg D2590 without cutting fluid

6-Countersink holes as per Dwg D2590 without cutting fluid

7-Debur and blow out all chips from inside of tube

8-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting
Pick:

Qty Part Number Description Batch
A/R Sikaflex-291 8-112395

Sikaflex expire date: 2010/02

Start Time: 3:40 pm

Fin Time: 10:00 AM

DP 10-1-6

DP 10-1-6

MB
10-01-06

DMO 10-01-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

0.00



CNC Bend 1

Memo

0.00

Bend as per program D2590.C on CNC Bender

DP

10-1-7

CNC Delta 100 Bender

130

0.00



Skid tubes

Memo

0.00

1-Cut tubes as per Dwg. D2590.

DP

10-1-7

Skid tubes

2-Deburr ends after cutting. Remove alodine from around holes

BE 10-01-07

140

0.00



QC

Memo

0.00

QC5- Inspect part completeness to step on W/O

8/10/01/08

Y

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Prepare tube for welding D2576-3 Step Remove alodine as required.

BE 10/01/11

2-Weld step D2576 as per Dwg. D2590 and QSI 004

A/R Aluminum Rod

M112860

BE 10/01/11

3-Weld crossbolt spacers D2579 as per Dwg. D2590 and QSI 004. For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill

A/R Aluminum Rod

M112860

BE 10/01/11

4-Grind welds as per Dwg D2590 Grind flush ridge made from bending

5-Drill holes for wearplates using DT 8218 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Debur

6-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2590. Debur holes

7-Drill pilot holes for all cap using DT 8215 Open holes to #6 Drill bit. Debur

8-Drill pilot holes for Towing using DT9425, open to .640" and Debur
****verified dim. before drilling****

Avig 10-01-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC10- Inspect visual per QSI004- ground welds

0.00



=> 8/10/11



QC

Memo

0.00

Quality Control

170

QC5- Inspect part completeness to step on W/O

0.00



=> 8/10/11



QC

Memo

0.00

Quality Control

180

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



M113170

=> 10-01-12



Plb ->

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7:45pm
320°F
8:15pm

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D204-635-041 PAR #: Fault Category: QC SKID tubes + inspection NCR: Yes No DQA: Date: 10-01-28
 Resolution: re work Disposition: re work QA: N/C Closed: Date: 10-01-28

NCR: <u>54890</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/1/12	#180 for	while drilling another skid tube employee noticed that he was about to use the wrong Sig. In doing this he realized that he was using the wrong Sig on this tube.	GP 10.01.12	- Sig are clearly marked. - inspector thought he was inspecting 205 skids close to them all being together		S 10/01/14	GP 10.01.12 per Q51042	S 10/01/12
	#180.	He used the Sig for 205 not 201. Tube was unspecked and not noticed. R.C. Look at attention at Seq. #180.8 and @ inspection.	GP 10.01.12	- Ball P/C to clean area for weld. - Make plug 0.640 send out of 6061 T6 m 112442 0.120 in the thickness	M 10/1/13 MR 10/01/12	S 10/01/14 S 10/01/14	GP 10.01.12	S 10/01/12
		Ø 0.640 TOW-RING HOLE IN WRONG LOCATION.	GP 10.01.12	- weld as per Q57 004 A/R M112860 - Ball used - Drill TOW-RING hole in correct location per DWG.	RE 10/01/13 M 10/1/13	S 10/01/14 S 10/01/14	GP 10.01.12	S 10/01/12
			GP 10.01.12	- Re Alumi + P/C per Q57 005	10-01-12		GP 10.01.12	S 10/01/12

NOTE: Date & initial all entries

Work Order ID 54890

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Stop



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Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/1/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC3- Inspect Part Finish

0.00



BL

10-01-21

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Work Order ID 54890

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Item ID: D204-635-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 12/31/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

200

0.00



HandFinish

Hand Finishing

Memo

0.00

1-Install inserts & wearplates & gaskets using a drop of Sikaflex on insert holes before installing wearplates

A/R Sikaflex-291

Sikaflex expire date:

ML12345
10/08

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2590 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive

A/R Sikaflex-291

Sikaflex expire date:

ML12345
10/08

5-Wing Walk as per Dwg D2590 and QSI 005

4.4

Batch:

112900

10-01-22 ①

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 54890

January 5, 2010 8:28:48 AM

Page 8

Item ID: D204-635-041

Accept

Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 05/01/2010 Start Qty: 1.00

Required Date: 08/01/2010 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Run Start

Approvals: Process Plan:

Date:

Tooling:

Date:

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00

⇒ 51010122

QC

Memo

0.00

Quality Control

211

Identify + Stock PN ~~54888~~

10/1/26

Pro

220

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/1/27

11/01/27

W/O: 54890		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/01/27	211	Please ADD "Identify & Stock" seg. FORM CHANGE	DA	10/01/27		LC	C 10/01/27

Part No: D204-635-041 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

January 5, 2010 8:28:52 AM

Page 1

Work Order ID: 54890

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item D/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
--------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

ALS7-1032-130 Purchased

No

180

Each

1,530.000

44.0000



Insert

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1530

105855

16

108606

52

111529

188

111779 ✓

313

112772

11

113238

950

44. BK 10-01-22

AN3-5A

Purchased

No

180

Each

1,975.000

2.0000



Bolt

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1975

100188

188

105057 ✓

1787

2 BK 10-01-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

January 5, 2010 8:28:52 AM

Work Order ID: 54890

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------	---------------------	------------	----------	------------------	---------------	--------------	-----------------	-------------	-----------------------	------------	-------------	--------

AN3C4A

Purchased

No

180

Each

1,195.000

44.0000



BOLT

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1195

112314

13

112720

12

112724

3

112829

1

112991

2

113121

64

113226

586

113359

14

113422

500

AN960C10L

Purchased

No

180

Each

416.0000

44.0000



washer

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

100

103585

100

Main Warehouse

ST

316

112116

156

112612

160

NAS 1149C0032R 113288

44 BR 1001-22

January 5, 2010 8:28:52 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
----------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN960JD10L

Purchased

No

180

Each

4,915.000

2.0000



Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

4915

101291

16

104885

25

105793

236

109632

174

110985 ✓

4464

2 BR 10-01-22

D2594-1

Manufactured

No

180

Each

250.0000

10.0000



Plug, 205 Skidtube

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

122

54008

17

54643 ✓

105

10 BR 10-01-22

Main Warehouse

ST

128

42221

16

42807

92

43884

3

46435

2

51527

9

51757

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2594-3		Manufactured	No			180	Each	362.0000	10.0000			
												
O-Ring, 205 Skidtube												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

FP 27

51613 27

Main Warehouse

ST 335

52562 ✓ 335

180 Each 160.0000 1.0000

D2855

Manufactured No



Cap

Warehouse Loc Qty Loc Code
Location

Main Warehouse

FP6 160

50513 1

50770 1

51539 ✓ 42

53791 116

10 BF 10-01-22

1 10-01-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Alt Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3564-11		Manufactured	No			180	Each	16.0000	1.0000			
 Wearshoe												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP19	14	
52125 ✓	14	
Main Warehouse		
ST	2	
45823	1	
50112	1	

1 PR 10-01-22

D3564-13

Manufactured No

180 Each 34.0000 1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP17	22	
51611 ✓	22	
Main Warehouse		
ST	12	
45409	2	
46495	10	

1 PR 10-01-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube



Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00



Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3564-7		Manufactured	No			180	Each	22.0000	1.0000			
												
Wearshoe												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	22	
33803	5	
43229	15	
46492 ✓	2	

1 BR 10-01-22

D3564-9		Manufactured	No			180	Each	13.0000	1.0000			
												
Wearshoe												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP19	11	
53806 ✓	11	
Main Warehouse		
ST	2	
44659	1	
45825	1	

1 BR 10-01-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube


Comments:

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3566-1		Manufactured	No			180	Each	27.0000	2.0000			
 Gasket												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP 55011	22	
52512	3	
54480	19	
Main Warehouse		
ST	5	
46349	1	
51218	1	
51259	3	

2 BR 10-01-22

D3566-13	Manufactured	No				180	Each	94.0000	1.0000			
 Gasket												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	92	
51606 ✓	9	
53461	83	
Main Warehouse		
ST	2	
45717	1	
50265	1	

1 BR 10-01-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 8

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube


Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3566-7 		Manufactured	No			180	Each	8.0000	1.0000			
Gasket												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

8

37354 ✓

8

110

Each

96.0000

1.0000

D2500-1-190

Manufactured

No



Ext'n - I' Beam Tube 4"

Warehouse Loc Qty Loc Code
Location

Main Warehouse

LG

93

52319

93

Main Warehouse

ST

3

46468

3

110

Each

0.0000

1.0000

D2597

Manufactured

No



204 Web

1 BR 10-01-22

DP 10-1-6

R-55070 MB 10-01-06

January 5, 2010 8:28:53 AM

Shop Packet Print

Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 9

January 5, 2010 8:28:53 AM

Work Order ID: 54890



Parent Item: D204-635-041



Parent Item Name: Replacement Skidtube

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2576-3		Manufactured	No			150	Each	151.0000	1.0000			



Step (maching detail)

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

151

43504

3

46661

101

52215

47

1 25 10/6/11

January 5, 2010 8:28:53 AM

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Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 8:28:53 AM

Work Order ID: 54890



Parent Item: D204-635-041



Parent Item Name: Replacement Skidtube

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Loc Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2579		Manufactured	No			150	Each	381.0000	17.0000			
Crossbolt Spacer												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	259	
51525	4	
53780	3	
54543	38	
54642	214	
Main Warehouse		
ST	122	
43988	4	
46434	4	
46956	2	
47797	9	
48272	2	
51314	71	
51315	30	

17 2E 10/01/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2590	REV. 0 SHEET 1 OF 2
DATE 07.04.05		TITLE 204 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.28	REDRAWN, INCLUDED DEO 9094/9097	
D	07.04.05	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124	

RELEASED
07-06-28-#

QTY -041	Part Number	Description
X	D2590-041	SKIDTUBE ASSEMBLY
1	D2500-1-190	EXTRUSION
1	D2576-3	STEP
17	D2579	CROSS BOLT SPACER
10	D2594-1	PLUG
10	D2594-3	O-RING
1	D2597	204 WEB
1	D2865	AFT CAP
1	D3564-7	WEARSHOE
1	D3564-9	WEARSHOE
1	D3564-11	WEARSHOE
1	D3564-13	WEARSHOE
2	D3566-1	GASKET
1	D3566-7	GASKET
1	D3566-13	GASKET
44	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
44	AN3C4A	BOLT
2	AN3-5A	BOLT
44	AN960C10L	WASHER
2	AN960JD10L	WASHER

SHOP COPY
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ENGINEERING
UNCONTROLLED COPY
SUBJECT TO ALTERNATE
WITHOUT NOTICE
WORK ORDER
NO. 54890

PH 10-1-05

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2597 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-204 TO LOCATE AND DRILL $\varnothing 0.297$ HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (44 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:
ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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RELEASED
07-06-28

Diagram illustrating the underside of the D2576 propeller, showing the locations for grinding and flushing:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- LOCATION RIDGE ON UNDERSIDE OF D2576
- GRIND FLUSH

0.206

DR TO D2855 CAP
ATION (2 PLACES)

10L WASHER (2 PLACES)

D2855 CAP

SEAL WITH SIKAFLEX-241

0.40

D2579 SPACER

WEB (REF)

AFTER PERFORM

1. CHA
2. INS
3. WEL

1. AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT 02579 SPACER (17 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C-BORE 02579 SPACER TO #0.437 X 1.00 DEEP

AL57-1032-130 (REF)
(TYP 44 PLACES)

37.50
DISTANCE TO RT END
OF D2597 WEB

3
7

1.750 1.750

#0.508 (TYP.)
(34 PLACES)

REFER TO DETAIL A

1.750 7.375 26.000 35.000 71.000

36.000 (REF)
4 EQUAL SPACES
5.00 PITCH

38.0

165.5
(D2500-1)

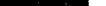
D2590-1 BENDING AND CUTTING DETAIL

The diagram illustrates the bending and cutting detail of a pipe. Key dimensions and features include:

- 1.4**: Dimension at the start of the bend.
- 4**: Callout for the first bend.
- 1.0**: DISTANCE BETWEEN HOLE AND TANGENT POINT.
- 13.4**: Dimension from the start of the bend to the first hole.
- 6.5**: DISTANCE BETWEEN HOLE AND TANGENT POINT.
- 25.4**: Dimension from the second hole to the end of the bend.
- 4**: Callout for the second bend.
- 0.640**: Dimension at the end of the bend.
- 13.5**: Dimension at the end of the bend.
- 37.5 ± 1.0**: Total dimension from the start of the bend to the end of the bend.

[illegible]

W/O 54890

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	CHECKED	APPROVED		DRAWING NO.	SHEET 2 OF 2
	DATE	TITLE		SCALE	
	07.04.05	204 SKIDTUBE ASSEMBLY		1:24	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 221

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Berclay Elliott
Job number: 542020
Part number: D205 634 041
Description: 205 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier B. D. A. Date of Test Coupon 09.12.17

Welder Berclay Elliott Date of Test Coupon 09.12.17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld